UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,452	03/29/2004	David E. Slobodin	107773-132655	3144

25943 7590 06/30/2005

SCHWABE, WILLIAMSON & WYATT, P.C.
PACWEST CENTER, SUITE 1900
1211 SW FIFTH AVENUE
PORTLAND, OR 97204

EXAMINER	
BLACKMAN, ROCHELLE ANN J	
ART UNIT	**PAPER NUMBER**
2851	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/812,452	SLOBODIN ET AL.	
	Examiner	Art Unit	
	Rochelle Blackman	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/06/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 10 is objected to because of the following informalities: the claim recites the limitation "the processor" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Erchak et al. (U.S. Patent Application Publication No. 2005/0040424).

Regarding claim 1, Erchak discloses a projection system (for example, see FIG. 11) comprising: a solid state light source (see 1110 of FIG. 11); a sensor (see 1520 of FIG. 11) either coupled to or integrated with the solid state light source to monitor a region of the solid state light source for a thermal condition, and output a signal indicative of the thermal condition of the monitored region; and a controller (see 1510 of FIG. 11) coupled to the sensor to conditionally initiate one or more thermal management

actions based at least in part on the thermal condition of the region as indicated by the signal (see pg. 8, paragraph [0129]).

Regarding claim 2, Erchak discloses wherein the solid state light source comprises a selected one of a light emitting diode and a laser diode (see 1110 of FIG. 11).

Regarding claim 3, Erchak discloses wherein the projection system further comprises an active cooling arrangement (see 1510 of FIG. 110 thermally coupled to the solid state light source, and the controller is coupled to the active cooling arrangement to control (also see 1510 of FIG. 11) its operations, varying an amount of cooling the active cooling arrangement imparts on the solid state light source based at least in part on the thermal condition of the region as indicated by the signal (see pg. 8, paragraph [0029]).

Regarding claim 4, Erchak discloses wherein the active cooling arrangement comprises a fan (see *fans* in paragraph [0129] of pg. 8), and the controller controls a speed of the fan, varying an amount of air flow the fan drives pass the solid state light source (although the function of the *fan* is not disclosed, the "air flow" and/or "speed" of the *fan* is considered to controlled or regulated in some sort of manner or capable of being controlled or regulated in the same manner thereof, to effectively cool "solid state light source" 1110).

Regarding claim 5, Erchak discloses wherein the active cooling arrangement comprises a cooling pipe (see *heat pipes* in paragraph [0129] of pg. 8), and the controller controls a flow rate of the cooling pipe, varying an amount of fluid flow pass

the solid state light source (although the function of the *heat pipes* is not disclosed, the "flow rate" of the *heat pipes* is considered to be controlled or regulated in some sort of manner or capable of being controlled or regulated in the same manner thereof, to effectively cool the "solid state light source" 1110).

Regarding claim 6, Erchak discloses wherein the active cooling arrangement comprises a thermoelectric cooler (see *thermoelectric coolers* in paragraph [0129]), and the controller controls an operation level of the thermoelectric cooler, varying an amount of heat being removed from the solid state light source (although the function of the *thermoelectric coolers* is not disclosed, the "operation level" of the *thermoelectric coolers* is considered to be controlled or regulated in some sort of manner or capable of being controlled or regulated in the same manner thereof, to effectively cool the "solid state light source" 1110).

Regarding claim 7 and 8, Erchak discloses wherein the projection system further comprises drive circuitry (see *power input to LED 1110* and *higher drive currents* in paragraph [0129] of pg. 8) coupled to the solid state light source to drive the solid state light source, and the controller is further coupled to the drive circuitry to influence its operation, indicating to the drive circuitry to vary an amount of drive voltage or current the drive circuitry applies to the solid state light source, based at least in part on the thermal condition indicated by the signal (see lines 10-14 of paragraph [0129] of pg. 8).

Regarding claim 9, Erchak discloses wherein the projection system further comprises a processor (see lines 10-14 of paragraph [0129] of pg. 8) coupled to the light source to control the light source to project an image, and an input interface

coupled to the processor to facilitate input to the processor pixel data of the image (see pg. 8, paragraphs [0126-0128] and also see lines 1-14 of paragraph [0129] of pg. 8).

Regarding claim 10, Erchak discloses wherein the processor comprises the controller (also see pg. 8, paragraphs [0126-0128] and lines 1-14 of paragraph [0129] of pg. 8).

Regarding claim 11, Erchak discloses wherein the projection system further comprises a television tuner coupled to the input interface (see pg. 4, paragraph [0099] and pg. 23, claim 33).

Regarding claims 12-18, the "method of operation" in a "projection apparatus" is similarly met by the features and functions of the above-mentioned elements recited for the "projection system" of claims 1 and 3-8.

Regarding claims 19 and 20, the "projection apparatus" is similarly met by the features and functions of the above-mentioned elements recited for the "projection system" of claims 1 and 3.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sugawara et al. (U.S. Patent No. 6,322,218), projection type display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

JUDY NGUYEN
SUPERVISORY PATENT EXAMINER